From: Coan, Sean [CoanSM@cdmsmith.com]

**Sent**: 7/6/2016 10:18:12 PM

To: Cirian, Mike [Cirian.Mike@epa.gov]

CC: Repine, Damon [RepineDL@cdmsmith.com]; Formanek, Erin [formanekek@cdmsmith.com]; Welch, August

[WelchA@cdmsmith.com]; Hoogerheide, Roger [Hoogerheide.Roger@epa.gov]

Subject: CFAC - Field Modification No. 4

## Good Afternoon Mike,

CDM Smith has reviewed the Phase I SAP MOD #4 Record of Modification from Roux and has the following comments:

- Description of Modification section:
  - Please attach a copy of the TestAmerica Standard Operating Procedure (SOP) for Incremental Sampling Methodology (ISM).
  - Please describe the ISM "wedge" approach to obtain aliquots from the direct-push soil cores in detail and note any modifications.
- Rationale for Modifications/Potential Implications of Modifications section:
  - Please change the word 'Rational' to 'Rationale' in the heading for the Rationale for Modifications/Potential Implications of Modifications section.
  - Please modify the second sentence as such: "Specifically, CDM Smith personnel were concerned over the possibility for a potential bias because the field processing..."
  - Please add to the section a discussion of the fact that CDM Smith was concerned not only that there
    may be a potential bias introduced by field processing (e.g., smaller soil particles may have settled upon
    hand mixing the soil, and subsamples were not collected in accordance with ITRC ISM guidance resulting
    in a sample not representative of the specified sampling area).
  - Please note in the fourth sentence that the initial sampling approach could have resulted in a low or a high bias.
- Proposed Text Modifications in Associated Document section:
  - Please note that the soil sampling SOP should be modified to include the agreed upon sampling approach if future sampling is to be conducted.
- Data Quality Indicator
  - Please also mark the box for 'High Bias'. It is possible that if a high bias is demonstrated it would be favorable to resample the other decision units (DUs). This resampling could potentially save on remediation costs if the high bias resulted in risk above an established level of concern.
  - In the 'Note', please elaborate on how this evaluation will be performed and what the acceptance criteria will be such that it is not necessary to resample the remaining DUs (e.g. the analytical results for each DU may not be within X% of ecological soil screening values, if they are, resampling should occur at all DUs).

Feel free to contact us if you have any questions or would like to discuss.

## Thanks very much,

Sean M. Coan, PG | Project Manager/Geologist | **CDM Smith** | 50 West 14<sup>th</sup> Street, Suite 200 | Helena, MT 59601 | Direct: 406.441.1463 | Fax: 406.449.7725 | coansm@cdmsmith.com | cdmsmith.com